

after the crystallization of said semiconductor film, forming a first thin film transistor by using the first region of the semiconductor film and a second thin film transistor by using the second region of the semiconductor film,

wherein a concentration of said metal in said first region is  $1 \times 10^{19}$  atoms/cm<sup>3</sup> or lower, and

wherein the first thin film transistor is so arranged that said crystals extend along with a direction in which carriers of said first transistor flow.

39. (Amended) A method of manufacturing a semiconductor device for an active matrix type electro-optical display having a driving circuit portion and a display portion comprising the steps of:

forming a semiconductor film to be crystallized over a substrate, said semiconductor film having a first region on said driving circuit portion and a second region on said display portion;

disposing a metal in contact with a selected region of only the first region of the semiconductor film, said metal being capable of promoting crystallization of said semiconductor film;

heating said semiconductor film so that crystallization of said semiconductor film occurs only in the first region thereof while the semiconductor film in said second region is not crystallized, wherein said crystallization proceeds in a direction parallel to a major surface of said substrate from said selected region with diffusion of said metal through the semiconductor film, thereby forming crystals of said semiconductor film in said first region extending parallel with the major surface of the substrate; and

after the crystallization of said semiconductor film, forming a first thin film transistor by using the first region of the semiconductor film and a second thin film transistor by using the second region of the semiconductor film,

wherein a concentration of said metal in said first region is  $1 \times 10^{19}$  atoms/cm<sup>3</sup> or lower, and





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wherein said first thin film transistor is so arranged that said crystals extend along with a direction in which carriers of said first transistor flow.

-- 76. The method according to claim 27, further comprising forming a first thin film transistor using said first semiconductor island, so that the direction of the crystallization proceeding coincides with a carrier flow direction of said first thin film transistor.

- 77. The method according to claim 33, further comprising forming a first thin film transistor using said first semiconductor island, so that the direction of the crystallization proceeding coincides with a carrier flow direction of said first thin film transistor.
- 78. The method according to claim 36, wherein the direction of the crystallization proceeding coincides with a carrier flow direction of said first thin film transistor.
- 79. The method according to claim 42, further comprising a first thin film transistor using said first semiconductor island, so that the direction of the crystallization proceeding coincides with a carrier flow direction of said first thin film transistor.
- 80. The method according to claim 45, further comprising a first thin film transistor using said first semiconductor island, so that the direction of the crystallization proceeding coincides with a carrier flow direction of said first thin film transistor.
- 81. The method according to claim 47, further comprising forming a first thin film transistor using said first semiconductor island, so that the direction of the crystallization proceeding coincides with a carrier flow direction of said first thin film transistor. --